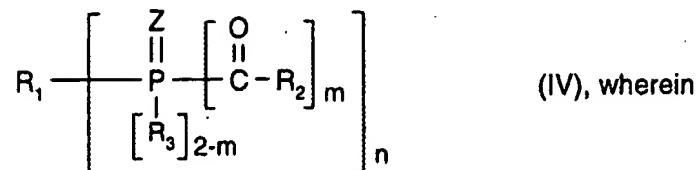


1. (cancelled).

2.(currently amended): A process for the preparation of acylphosphine oxides and acylphosphine sulfides of formula IV



$R_1, R_2, R_3, n=1$ and $m=2$ have the meaning cited in claim 1, and

R_1 is C_1-C_{18} alkyl, C_2-C_{18} alkyl which is interrupted by one or several non-successive O atoms; phenyl-substituted C_1-C_4 alkyl, C_2-C_8 alkenyl, phenyl, naphthyl, biphenyl, C_5-C_{12} cycloalkyl, the groups phenyl, naphthyl, biphenyl, C_5-C_{12} cycloalkyl being unsubstituted or substituted by one to five halogen, C_1-C_8 alkyl, C_1-C_8 alkylthio and/or C_1-C_8 alkoxy;

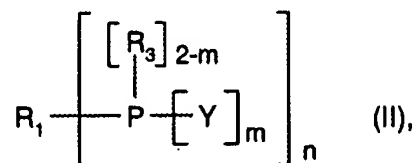
Z is O or S,

R_2 is C_1-C_{18} alkyl, C_3-C_{12} cycloalkyl, C_2-C_{18} alkenyl, phenyl, naphthyl, biphenyl, the groups phenyl, naphthyl, biphenyl being unsubstituted or substituted by one to four C_1-C_8 alkyl, C_1-C_8 alkoxy, C_1-C_8 alkylthio and/or halogen;

R_3 is C_1-C_{18} alkyl, C_2-C_{18} alkyl which is interrupted by one or several non-successive O atoms; phenyl-substituted C_1-C_4 alkyl, C_2-C_8 alkenyl, phenyl, naphthyl, biphenyl, C_5-C_{12} cycloalkyl, the groups phenyl, naphthyl, biphenyl, C_5-C_{12} cycloalkyl being unsubstituted or substituted by one to five halogen, C_1-C_8 alkyl, C_1-C_8 alkylthio and/or C_1-C_8 alkoxy;

by

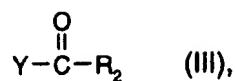
(1) reacting organic phosphorus halides of formula II



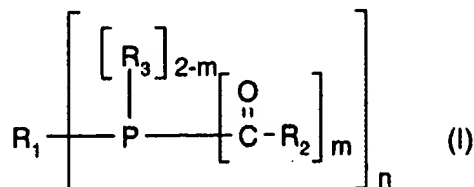
wherein R_1, R_3, Y, n and m have the meaning cited in ~~claim 1~~ above and Y is Br or Cl,

with an alkali metal or with magnesium in combination with lithium, or with mixtures thereof, ~~where appropriate in the presence of~~ with or without a catalyst, and

(2) subsequent reaction with m acid halides of formula III



wherein R_2 , m and Y have the meaning cited in ~~claim 1 above~~, and
 (3) oxidation or reaction with sulfur of the acylphosphine of formula I

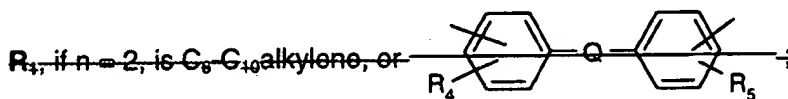


which is obtained by reaction (2),

wherein R_1 , R_2 , R_3 , m and n have the meaning cited in ~~claim 1 above~~,
 which process is carried out without isolation of the intermediates.

3-29. (cancelled).

30. (currently amended): A process according to claim 2, wherein
 R_1 , if $n=1$, is $\text{C}_1\text{-C}_{12}$ alkyl, cyclohexyl, phenyl or biphenyl, the ~~radicals~~groups phenyl and biphenyl
 being unsubstituted or substituted by one to four $\text{C}_1\text{-C}_8$ alkyl and/or $\text{C}_1\text{-C}_8$ alkoxy;



R_3 is $\text{C}_1\text{-C}_{12}$ alkyl, cyclohexyl, phenyl or biphenyl, the ~~radicals~~groups phenyl and biphenyl being un-
 substituted or substituted by one to four $\text{C}_1\text{-C}_8$ alkyl and/or $\text{C}_1\text{-C}_8$ alkoxy;

~~Q is a single bond or -O- , and~~

~~R_4 and R_5 are hydrogen.~~

31. (previously presented): A process according to claim 2, wherein
 R_2 is phenyl which is substituted in 2,6- or 2,4,6-position by $\text{C}_1\text{-C}_4$ alkyl and/or $\text{C}_1\text{-C}_4$ alkoxy.

32. (cancelled).

33. (previously presented): A process according to claim 2, wherein Y in formula II is chloro.

34. (previously presented): A process according to claim 2, wherein the reaction (1) is carried out using lithium, sodium or potassium.

35. (currently amended): A process according to claim 34, wherein from 4 to 6 atom equivalents of the alkali metal are used for the preparation of compounds of formula I, wherein m is 2, ~~and 2 to 3 atom equivalents of the alkali metal are used for the preparation of compounds of formula I, wherein m is 1.~~

36. (previously presented): A process according to claim 2, wherein Y in the compounds of formula III is chloro.

37. (previously presented): A process according to claim 2, which comprises carrying out the reaction (1) in the presence of a catalyst.

38. (previously presented): A process according to claim 2, which comprises carrying out the reaction (1) of the organic phosphorus halides (II) with an alkali metal in the temperature range from -20° to +120°C.

39. (previously presented): A process according to claim 2, which comprises carrying out the reaction (1) of the organic phosphorus halides (II) with magnesium in combination with an alkali metal in the temperature range from 80° to 120°C.

40. (previously presented): A process according to claim 2, wherein the reaction (2) of the metallized phosphine with the acid chloride (III) is carried out at -20° to +80°C.

41. (previously presented): A process according to claim 2, wherein the reaction steps (1) and (2) are carried out in the same solvent.

42. (currently amended): A process according to claim 2, wherein, in formula I, n is 1, m is 1 or 2, R₁ is phenyl which is unsubstituted or substituted by C₁-C₄alkyl or C₁-C₈alkoxy, or R₁ is C₁-C₁₂alkyl; R₂ is phenyl which is substituted by halogen, C₁-C₄alkoxy or C₁-C₄alkyl; and R₃ is unsubstituted or C₁-C₄alkyl-substituted phenyl.